



Weekly Farm Economics: Price Loss Coverage in the House Discussion Bill and Acreage Decisions

Gary Schnitkey

Department of Agricultural and Consumer Economics
University of Illinois

Carl Zulauf

Department of Agricultural, Environmental and Development Economics
The Ohio State University

July 12, 2012

farmdoc daily (2):132

Recommended citation format: Schnitkey, G. and C. Zulauf. "Price Loss Coverage in the House Discussion Bill and Acreage Decisions." *farmdoc daily* (2):132, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 12, 2012.

Permalink: <http://farmdocdaily.illinois.edu/2012/07/price-loss-coverage-in-the-hou.html>

http://farmdoc.illinois.edu/podcasts/fefo/FEFO_12_16.mp3

The House Agriculture Committee released a discussion draft of the 2012 Farm Bill, which is further described [here](#). This draft includes a target price program called Price Loss Coverage (PLC), a different approach from revenue options in the Senate Farm Bill. If the House Discussion Bill becomes law, farmers will be able to choose between PLC and Revenue Loss Coverage, essentially a county revenue program similar to the ARC program in the Senate Farm Bill. Herein PLC is described. Parameters of the House Bill cause estimated payments from PLC to be higher for wheat, rice, and peanuts than for corn and soybeans, potentially impacting acreage decisions.

Price Loss Coverage (PLC)

As defined in the House Discussion Bill, PLC makes payments when midseason price is below the effective price. The midseason price is the average of the national price during the first five months of the marketing year. For corn and soybeans, this would be prices during the months from September through January.

In the House Discussion Bill, effective prices equal \$3.70 per bushel for corn, \$8.40 per bushel for soybeans, \$5.50 per bushel for wheat, \$14 per hundredweight for rice, and \$535 per ton for peanuts (see Table 1). When the midseason price is below the effective price, the payment rate equals the effective price minus the higher of the midseason price or the loan rate. Loan rates are \$1.95 per bushel for corn, \$5.00 per bushel for soybeans, \$2.94 per bushel for wheat, \$6.50 per hundredweight for rice and \$355 per ton for peanuts.

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from *farmdoc daily*. Guidelines are available [here](#). The *farmdoc daily* website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies [here](#).

Table 1. Effective Prices, Projected Prices, and Estimates of Price Loss Coverage (PLC) Payments Resulting from House Discussion Draft of 2012 Farm Bill.

		Effective Price ¹	CBO Projected Price ²	Effective Price as a % of Projected Price ³	Chance of Payment ⁴	Payment Rate ⁴	Price Loss Coverage (PLC) Payment ⁵	PLC Payment as a % of Crop Revenue ⁶
		\$/unit	\$/unit			\$/unit	\$/acre	
Corn	\$ per bu.	3.70	4.72	78%	10%	0.04	4.74	1%
Soybeans	\$ per bu.	8.40	10.86	77%	10%	0.12	3.86	1%
Wheat	\$ per bu.	5.50	5.94	93%	35%	0.29	9.98	4%
Rice	\$ per cwt.	14.00	13.13	107%	68%	1.77	93.84	10%
Peanuts	\$ per ton	535.00	505.24	106%	58%	56.00	77.11	8%

¹ Effective prices in the House Discussion Bill.

² Average projected prices from 2013 to 2022 contained in the Congressional Budget Office, March 2012 baseline.

³ Equals the effective price divided by the CBO projected price.

⁴ Estimated using CBO projected prices and historic price variability.

⁵ Equals payment rate x .9 times average national yield from 2008 through 2011 times .85.

⁶ Equals PLC payment divided by expected crop revenue (average yields from 2008 through 2011 times CBO projected price).

Per acre payments for a planted acre equals:

payment rate x payment yield x .85.

Farmers will receive payments on prevented planted acres at a rate of .3 rather than the .85 for planted acres. Payment yield equals the current farm's counter-cyclical yields or updated yields based on the average yield from 2008 through 2012 times .9. The producer has a crop by crop choice to update the payment yield. On a farm, payment acres, which equals .85 times planted acres plus .3 times prevented planted acres, cannot exceed base acres.

As an example of PLC payments, take corn with an effective price of 3.70 per bushel. If the midseason price is \$3.50, the payment rate is \$.20 per bushel (\$3.70 effective price – \$3.50 midseason price). A farm with a 155 bushel payment yield, representative of payment yields for central Illinois, receives a payment of \$26 per acre (\$.20 payment rate x 155 bushel yield x .85).

PLC differs from previous target price programs in that PLC makes payments on planted acres. Target price programs in previous Farm Bills use historical base acres, not planted acres, when determining payments. Base acres are set for a farm based on historical plantings and are not impacted by planting decisions in the current year. Because payments are much more directly tied to planted acres, the PLC program has higher potential to influence acreage decision than does previous target price programs as well as the direct payment program. Payment acres for the current direct payment program are either determined using planted acres from 1981 through 1985 or from 1998 through 2001, depending on the farmers choice regarding update options provided in the 2002 Farm Bill.

Effective Prices Relative to Projected Prices

Effective prices in the House Discussion Bill vary relative to projected long-run prices. To illustrate, effective prices are compared to long-run prices used by Congressional Budget Office (CBO) in projecting governmental expenditures from 2013 through 2022. In the authors' opinion, CBO prices represent reasonable price projections into the future, with the caveat that projecting agricultural prices is error prone. The average of yearly prices from 2012 to 2022 is \$4.72 per bushel for corn, \$10.86 for soybeans, \$5.94 per bushel for wheat, \$13.13 per hundredweight for rice, and \$505.24 for peanuts. Relative to the projected price, corn's effective price is 78% of the CBO projected price (see Table 1). Soybean's effective price is 77% percent of the effective price. The other crops have higher percentages of 93% for

wheat, 107% for rice, and 106% for peanuts (see Table 1).

Crops with lower percentages likely will receive PLC payments less often than crops with higher percentages. To illustrate, chance of payments, payment rates, and per acre payments are estimated using CBO long-run prices and historical price variability from 1972 through 2011. Using these parameters, corn and soybean have a 10% yearly chance of receiving a PLC payment (see Table 1). The remaining crops have a higher percent chance of payment: wheat has a 35% yearly chance, rice a 68% chance, and peanuts a 58% chance. Rice and peanuts have a higher than a 50% chance of receiving payments because the effective prices for these crops are above the CBO projected prices.

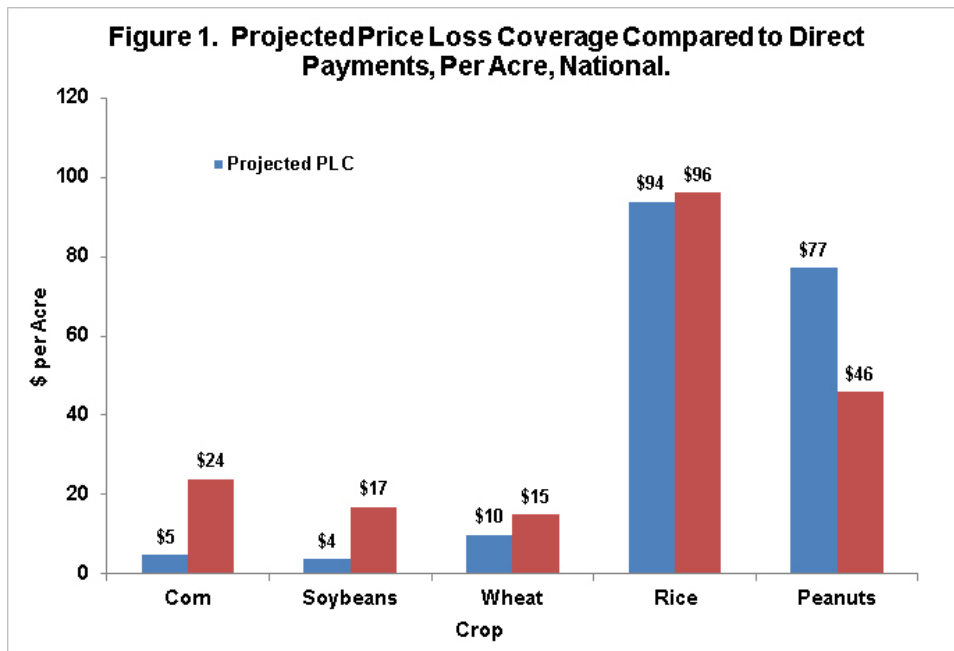
Per planted acre payments will vary across crops as well. On a national level, PLC payments for an acre are expected to be \$4.74 per acre for corn and \$3.86 per acre for soybeans (see Table 1). The remaining crops have higher per acre payments: wheat has a \$9.98 per acre payment, rice a \$93.84 per acre payment, and peanuts a \$77.11 per acre payment.

Per acre payments as a percent of crop revenue also vary across the crops. For each crop, expected crop revenue is estimated as the average of national yields from 2008 through 2011 times the CBO projected price. For corn, crop revenue is estimated at \$732 per acre and expected PLC payments represent 1% of crop revenue ($1\% = \$4.74 \text{ PLC payment} / \732 crop revenue). In other words, PLC payments will increase revenue for corn by 1%. Expected PLC payments as a percent of crop revenue are 1% for corn and soybeans, 4% for wheat, 8% for peanuts, and 10% for rice (see Table 1).

Impact on Planting Decisions and Commentary

Varying PLC payments as a percent of crop revenue across crops has the potential to impact acreage decisions. The PLC Program relatively favors crops in the following order: rice (10% PLC payment as a percent of crop revenue), peanuts (8%), wheat (4%), and corn and soybeans (1%). For example, a farmer with a choice of growing wheat or soybeans would likely consider the PLC payment in their decision making. This could switch acreage to wheat from soybeans because wheat has a higher expected PLC payment than soybeans.

Rice and peanuts have much higher direct payments relative to corn, soybeans, and wheat. Direct payments per acre are \$96 per acre for rice and \$46 for peanuts. This compares to \$24 per acre for corn, \$17 for soybeans, and \$15 for wheat. A strong relationship exists between the current direct payments and the estimated PLC payments across the five crops examined in this article (see Figure 1). This similarity raises a question for discussion: is part of the reason for setting effective price levels at their proposed levels an attempt to replicate direct payment levels with the PLC program?



If replication of the direct payment program is indeed the objective, this could be problematic because PLC is impacted by current plantings while the direct payment program is not, as discussed above. Moreover, in the past, distortionary impacts of setting prices too high relative to the market could be managed by increasing the acreage set aside required for the crop with support prices that were set too high relative to the market. But, acreage set asides were eliminated in the 1996 Farm Bill. Given the lack of set asides and the size of the differential payments across crops, attempts to preserve the relative order of payments in the direct payment program likely should not be tied to current planting decisions.

Acreage decisions also will depend on how many farmers choose PLC over Revenue Loss Coverage (RLC), the county revenue option. RLC will have differing impacts on acreage decisions than PLC. Hence, the extent to which farmers choose RLC could mute the impacts described above.